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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,576	07/11/2001	Kazuo Saito	K&Y-157-114	7170

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EXAMINER

ALEJANDRO, RAYMOND

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 08/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/901,576	SAITO ET AL.	
	Examiner	Art Unit	
	Raymond Alejandro	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 2,4,6 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 5, 7 and 11-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

This communication is responsive to the amendment filed 08/13/03. The applicants have overcome the objections and the 35 USC 102 rejection. However, the instant application is finally rejected over additional art as seen below and for the reasons of record.

### ***Election/Restrictions***

1. Applicant's election with traverse of Species 1 (claims 1, 3, 5 and 7) in Paper No. 6 is acknowledged. The traversal is on the ground(s) that "the separator of the invention identified in the Action as separator (1) a specified water holdability...is not limited to a separator prepared not using a perishable additive" as well as "the separator (2) having a specified pore volume...is not limited to a separator prepared using a perishable additive". This is not found persuasive because it is noted that as disclosed in the specification (pages 12, line 21 to page 13, line 9), the first and second embodiments include separators wherein the hydrophilicity and water-holding property are different. It is also contended that the perishable additive does affect the pore volume distribution of the film on the separator of the Species 2. Thus, the disclosure encompasses two different and separated embodiments which are mutually exclusive and do have distinguishing characteristics [SEE MPEP 806.04(f) and 809.02(a)]. Accordingly, serious burden would be raised if the search of both different methods was made as required for the separate and distinct inventions.

The requirement is still deemed proper and is therefore made **FINAL**.

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2. This application contains claims 2, 4, 6 and 8 drawn to an invention nonelected with traverse in Paper No. 6. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3 and 9-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the Japanese publication JP 10-270062.

The instant claims are directed to a separator wherein the disclosed inventive concept comprises the specific film on the separator surface and its water-holdability characteristic.

With respect to claim 1 and 9-10:

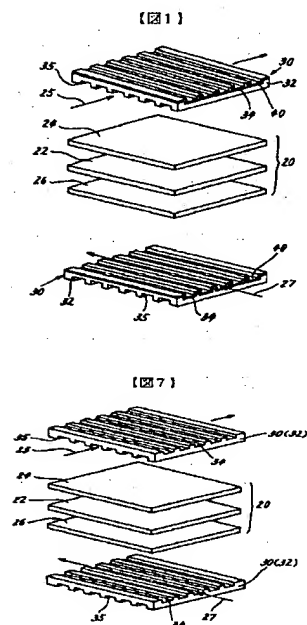
The JP'062 publication discloses a separator for solid electrolyte fuel cells wherein the separator has a surface protective layer containing conductive ceramic powder and glass on the

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surface of the separator base material (ABSTRACT). *It is noted that, in this case, the glass itself acts as a binder material, that is, the glass produces or promotes cohesion in loosely mixed substance/powder of the conductive powder.* It is also disclosed that the thickness of the film ranges between 10-100  $\mu\text{m}$ , preferably, 10-50  $\mu\text{m}$  (SECTION 0012).

【0012】セパレータ母材(32)の表面に形成される表面保護層(40)は、厚さが10 $\mu\text{m}$ ～100 $\mu\text{m}$ となるように形成されることが適当であり、10 $\mu\text{m}$ ～50 $\mu\text{m}$

As illustrated in **Figures 1 and 7** below, the separator comprises a base material in the form of a flat plate having a plurality of grooves at one or both sides thereof.



With respect to the transitional phrase “having”, the examiner has interpreted the same as an open claim language.

As to the limitation that the film has a water-holdability of 0.3 to 5.0 g per g of the film (or 0.3 to 3.0 g per g of the film ), since applicants disclose that “*the reason why the fuel cell separator (1) has sufficient hydrophilicity and water-holding property mainly at the surface is*

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*not clear, but is presumed to be that the conductive powder used in the conductive coating becomes secondary particles in the coating and these secondary particles form fine unevennesses or cracks at the surface of and/or inside the film made of the conductive coating” (see applicants’ specification, application 09/901576, page 11, lines 17-22), it asserted that having shown the separator of the prior art does have a coating comprising a conductive powder and a binder on its surface, the above-mentioned characteristic, property and/or function is thus inherent as the film composition recited in the reference is substantially identical to that of the claims, and therefore, claimed properties, characteristics or functions are presumed to be inherent (MPEP 2112. Requirements of Rejection Based on Inherency). Thus, the prior art’s separator seems to be identical except that the prior art is silent as to an inherent property, characteristic and/or function. In that, it is noted that the extrinsic evidence makes clear that the missing descriptive matter is necessarily present in the separator described in the reference, and that it would be so recognized by persons of ordinary skill. Furthermore, since the recited film material i.e. the conductive powder and the binder covers a very large number of applicable materials which can be used therefor, it is also contended that a film (or coating or layer) comprising any combination of conductive powder and binder on the separator surface would produce a separator exhibiting the specific water-holdability property.*

As for claim 3:

It is disclosed that the conductive powder has a mean particle diameter of about 1-10  $\mu\text{m}$  (SECTION 0009).

【０００９】セパレータ母材(32)の表面に形成される表面保護層(40)は、平均粒径約１ $\mu\text{m}$ ～数１０ $\mu\text{m}$ の導電性セラミック粉末と、平均粒径約１ $\mu\text{m}$ ～数１０ $\mu\text{m}$ のガラス粉末とを混合して、セパレータ母材(32)の表面に

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Therefore, the claims are anticipated by the JP'062 publication. However, if the claims are not anticipated the claims are obvious as it has been held similar products claimed in terms of its property, characteristics and/or functions are obvious. *In re Best 195 USPQ 430 and In re Fitzgerald 205 USPQ 594. See rationale and/or technical reason above to reasonably support the determination that the inherent property, characteristic and/or function necessarily flows from the teaching of the applied prior art.*

#### ***Allowable Subject Matter***

6. The following is a statement of reasons for the indication of allowable subject matter: a reasonable search for the prior art failed to reveal what is instantly claimed, particularly: the specific conductive powder as recited in claims 5 and 11; and the specific binder as recited in claims 7 and 12.

7. Claims 5, 7 and 11-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 3 and 9-10 have been considered but are moot in view of the new ground(s) of rejection.

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*Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (703) 306-3326. The examiner can normally be reached on Monday-Thursday (8:30 am - 7:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (703) 308-2383. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



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Raymond Alejandro  
Examiner  
Art Unit 1745



Patrick Ryan  
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Technology Center 1700